In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A process for removing a thermal barrier ceramic coating from a metallic substrate ~~surface~~ of a component comprising:

directing an air jet at a surface of the thermal barrier coating ~~on~~ of the substrate ~~surface~~ of the component, the jet containing a non-abrasive particulate media and emitting the media from a nozzle of the jet at a low pressure wherein said low pressure is insufficient for the media to damage the substrate ~~surface~~ but said low pressure is sufficient for the media to remove the thermal barrier ceramic coating from the substrate ~~surface~~.

2. (previously presented) The process of claim 1 wherein the pressure of the air jet is from about 20 to 100 PSIG.

3. (previously presented) The process of claim 2 wherein the media has a substantially spherical shape.

4. (previously presented) The process of claim 3 wherein the spherical media particles have a diameter of from about 0.002 to 0.010 inches.

5. (previously presented) The process of claim 4 wherein the media is glass beads.

6. (previously presented) The process of claim 1 wherein the component is a turbine engine component.

7. (previously presented) The process of claim 6 wherein the turbine engine component is a combustion chamber.

8. (currently amended) A process for removing a thermal barrier ceramic coating selectively from a cooling hole of a metallic turbine engine component ~~comprising~~ consisting essentially of:

directing an air jet at the cooling hole of the component, the jet containing non-abrasive particulate media and emitting the media from a nozzle of the jet at a low

pressure wherein said low pressure is sufficient to selectively remove said thermal barrier ceramic coating yet insufficient for the media to damage an underlying metallic ~~surface~~ substrate of the cooling hole ~~but said low pressure is sufficient for the media to remove the thermal barrier ceramic coating from the metallic surface of the cooling hole~~.

9. (previously presented) The process of claim 8 wherein the pressure of the air jet is from about 20 to 100 PSIG.

10. (previously presented) The process of claim 9 wherein the media has a substantially spherical shape.

11. (previously presented) The process of claim 10 wherein the spherical media particles have a diameter of from about 0.002 to 0.010 inches.

12. (previously presented) The process of claim 11 wherein the media is glass beads.

13. (previously presented) The process of claim 12 wherein the turbine engine component is a combustion chamber.

14. (previously presented) The process of claim 8 wherein the air jet is directed at the cooling hole toward a surface of the component opposing the surface having the thermal barrier coating.

15. (previously presented) The process of claim 9 wherein the air jet is directed at the cooling hole at substantially the same angle as the cooling hole.

16. (previously presented) The process of claim 8 wherein the air jet rounds the metallic edges of the cooling hole.

17. (previously presented) The process of claim 8 wherein the cooling holes are drilled into the turbine component using a laser drilling process.

18. (currently amended) A process for forming cooling holes on a thermal barrier coated turbine engine component comprising:

drilling cooling holes into the component;

coating ~~a surface of~~ the component containing the cooling holes with a thermal barrier

ceramic coating; and

directing an air jet at the cooling hole of the component, the jet containing non-abrasive particulate media and emitting the media from a nozzle of the jet at a low pressure wherein said low pressure is sufficient to selectively remove said thermal barrier ceramic coating yet insufficient for the media to damage an underlying metallic ~~surface~~ substrate of the cooling hole ~~but said low pressure is sufficient for the media to remove the thermal barrier coating from the metallic surface of the cooling hole~~.

19. (previously presented) The process of claim 18 wherein the pressure of the air jet is from about 20 to 100 PSIG.

20. (previously presented) The process of claim 19 wherein the media has a substantially spherical shape.

21. (previously presented) The process of claim 20 wherein the spherical media particles have a diameter of from about 0.002 to 0.010 inches.

22. (previously presented) The process of claim 21 wherein the media is glass beads.

23. (previously presented) The process of claim 22 wherein the turbine engine component is a combustion chamber.

24. (previously presented) The process of claim 16 wherein the air jet is directed at the cooling hole toward a surface of the component opposing the surface having the thermal barrier coating.

25. (previously presented) The process of claim 18 wherein the air jet is directed at the cooling hole at substantially the same angle as the cooling hole.

26. (previously presented) The process of claim 18 wherein the air jet rounds the metallic edges of the cooling hole.

27. (previously presented) The process of claim 18 wherein the cooling holes are drilled through the turbine component using a laser drilling process.

28. (new) The process of claim 1 wherein a bond coating is interposed between said thermal barrier ceramic coating and said metallic substrate.

29. (new) The process of claim 28 wherein said bond coating is selected from the group consisting of MCrAlY coating and an aluminide coating wherein M is selected from the group consisting of Ni, Co, Fe and mixtures thereof.

30. (new) The process of claim 29 wherein said aluminide coating is a platinum aluminide coating.

31. (new) The process of claim 8 wherein a bond coating is interposed between said thermal barrier ceramic coating and said metallic substrate.

32. (new) The process of claim 31 wherein said bond coating is selected from the group consisting of MCrAlY coating and an aluminide coating wherein M is selected from the group consisting of Ni, Co, Fe and mixtures thereof.

33. (new) The process of claim 32 wherein said aluminide coating is a platinum aluminide coating.

34. (new) The process of claim 18 wherein a bond coating is interposed between said thermal barrier ceramic coating and said metallic substrate.

35. (new) The process of claim 34 wherein said bond coating is selected from the group consisting of MCrAlY coating and an aluminide coating wherein M is selected from the group consisting of Ni, Co, Fe and mixtures thereof.

36. (new) The process of claim 35 wherein said aluminide coating is a platinum aluminide coating.